

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number
WO 2005/015766 A1

(51) International Patent Classification⁷: **H04B 5/00,**
G08C 17/04

(21) International Application Number:
PCT/IB2004/051353

(22) International Filing Date: 2 August 2004 (02.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03102478.9 8 August 2003 (08.08.2003) EP

(71) Applicants (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL). **AKTIEBOLAGET SKF** [SE/SE]; S-415 50 Göteborg (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GOOSSENS, Hendrikus, M., W.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **JANSEN, Gerardus, L.,**

M. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **VAN DEN BOSCH, Peter, H., J.** [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). **MOLENAAR, Alexander** [NL/NL]; c/o Byfogdegatan 4, S-415 50 Göteborg (SE).

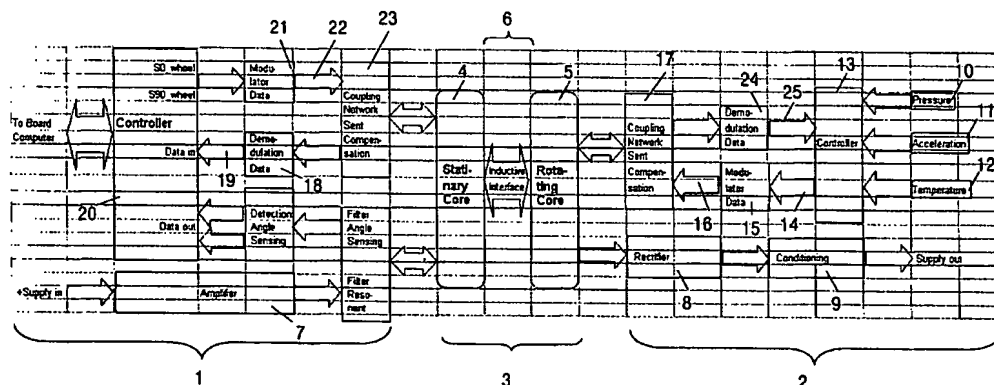
(74) Agent: **SLENDERS, Petrus, J., W.**; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

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(54) Title: UNIDIRECTIONAL POWER AND BI-DIRECTIONAL DATA TRANSFER OVER A SINGLE INDUCTIVE COUPLING



(57) Abstract: The present invention provides an inductive transmission system for inductive transmission of power and full duplex data signals between a first device (1) and a second device (2). The transmission system comprises: - a bi-directional inductive channel (6) between the first device (1) and the second device (2), - first transmission means (121) for transmitting a power signal at a first frequency from the first device (1) to the second device (2) over the inductive channel (6) - a first modulating device (21) for modulating a first data signal at a first modulation frequency, - a second modulating device (15) for modulating a second data signal at a second modulation frequency, - second transmission means (124) for transmitting the modulated first data signals from the first device (1) to the second device (2) over the inductive channel (6), and for transmitting the modulated second data signals from the second device (2) to the first device (1) over the inductive channel (6), wherein the first modulation frequency and the second modulation frequency are at least a factor two apart, and wherein the transmission system furthermore comprises signal cancellation means or compensation circuit for compensating for the sent data signal, providing a full duplex path without interference from the own sent signals at a device side.